

Appl. No. 10/640,851
Amendment
November 23, 2004

REMARKS

Claims 1-4, 6-9 and 11-21 are now pending in this application. Claims 5 and 10 have been cancelled without prejudice via this paper. Claims 1, 7, 12, 14, 16 and 21 have been amended via this paper. It should be understood that no amendments were made to distinguish prior art, therefore, the scope of all pending claims shall be construed to include all equivalents. Each amendment was made to more clearly define the invention.

The Applicants would like to thank the Examiner for his efforts with regard to the Official Office Action, dated August 24, 2004, related to the above referenced application. The Applicants also wish to express appreciation for the timeliness of the Official Office Action.

Additionally, the Applicants thank the Examiner for his courtesy during the telephone interview conducted with Applicant's representative Mr. James E. Shultz Jr. The substance of this interview is incorporated herein.

Turning to paragraph 1 of the Office Action, the Examiner has maintained his restriction. Claims 1 and 7 have been amended via this paper to include a limitation common to claims elected pursuant to the restriction requirement. Therefore, the restriction requirement is moot.

Turning to paragraph 2 of the Office Action, the Examiner has objected to the drawings under 37 CFR §1.83(a). The Applicants have amended the corresponding

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claim language. Therefore, this objection is moot. It should be understood that no amendments were made to distinguish prior art, therefore, the scope of all pending claims shall be construed to include all equivalents. Each amendment was made to more clearly define the invention.

Turning to paragraph 3 the Examiner has stated that the title of the invention is not descriptive. The Applicants have amended the title, therefore, this issue is moot.

Turning to paragraph 5 of the Office Action, the Examiner has rejected claims 12-19 and 21 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Applicants assume that the Examiner meant to refer to claim 14 in lieu of claim 13. The Applicants have amended claims 12, 14 and 21. Therefore, this rejection is moot. It should be understood that no amendments were made to distinguish prior art, therefore, the scope of all pending claims shall be construed to include all equivalents. Each amendment was made to more clearly define the invention.

Turning to paragraph 7 of the Office Action, the Examiner has rejected claims 1-24 and 28-35 under 35 U.S.C. §102(b) as being anticipated by Fujii et al. (U.S. Patent 4,867,561). The Applicants respectfully traverse this rejection for the following reasons.

As depicted in the following drawings, the Applicants respectfully submit that a host of lens prescriptions may be envisioned that would render the field of view of the imager unaffected by the opening in the housing.

FIG. 7

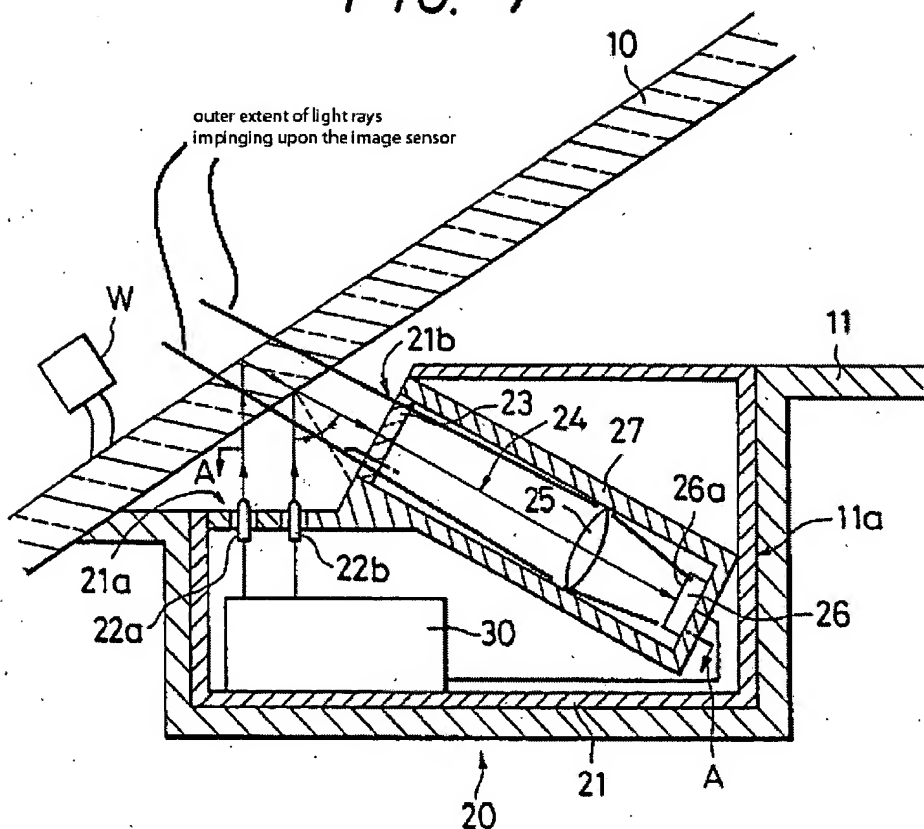
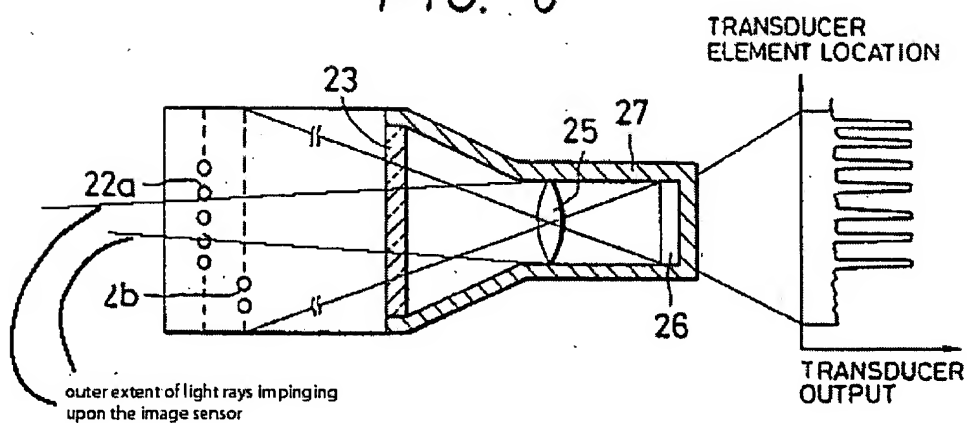


FIG. 8



The Applicants have superimposed lines on the original Figs. 7 and 8 of Fujii et al. depicting an example of the outer extent of light rays impinging upon the image sensor. In that Fujii et al. does not disclose a prescription for the associated lens, it would be impossible for one of ordinary skill in the art to conclude that Fujii et al. teaches, suggests or implies a vehicular vision system, comprising: an image sensor comprising an array of pixel sensors; at least one lens for gathering light rays from within a field of view and focusing the gathered light rays on said image sensor; and a housing in which said at least one lens and said image sensor are housed, said housing having an opening positioned several focal lengths in front of said at least one lens for limiting the field of view of said image sensor as now recited in claim 12 of the present application as amended via this paper. In that claim 13 depends from claim 12, the Applicants submit that claims 12 and 13 are in condition for allowance over Fujii et al. It should be understood that the amendments to claim 12 were to more clearly define the invention and that none of these amendments were made to distinguish from prior art. Therefore, Applicants submit that the scope of claims 12 and 13, including equivalents thereof, shall be unaffected by the amendments.

The Applicants further submit that Fujii et al. does not teach, suggest or imply a vehicular vision system, comprising: a housing defining an opening; an image sensor positioned in said housing spaced from said opening to view a scene through said opening; and at least one lens positioned in said housing, said at least one lens is operative to focus light rays from a scene viewed through said opening onto said image

sensor, wherein a field of view of said image sensor is limited by said opening and an axis normal to an image plane of said image sensor passes through said opening as recited in claim 20 of the present application. Applicants, therefore, submit that claim 20 is in condition for allowance over Fujii et al.

Turning to paragraph 8 of the Office Action, the Examiner has rejected claim 20 under 35 U.S.C. §102(b) as being anticipated by Takenaka et al. (JP 04-198808, published July 20, 1992). The Applicants respectfully traverse this rejection for the following reasons.

The Applicants have reviewed Figs. 1a, 1b and 1c of Takenaka et al. that depict examples of light rays impinging upon the image sensor. There is not one figure that depicts a light ray tracing in which the opening has any effect on the field of view of the image sensor. In that Fujii et al. does not disclose a prescription for the associated lens, at least in far as can be gleaned from the abstract and the drawings, it would be impossible for one of ordinary skill in the art to conclude that Fujii et al. teaches, suggests or implies a vehicular vision system, comprising: a housing defining an opening; an image sensor positioned in said housing spaced from said opening to view a scene through said opening; and at least one lens positioned in said housing, said at least one lens is operative to focus light rays from a scene viewed through said opening onto said image sensor, wherein a field of view of said image sensor is limited by said opening and an axis normal to an image plane of said image sensor passes through

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said opening as recited in claim 20 of the present application. Applicants, therefore, submit that claim 20 is in condition for allowance over Takenaka et al.

Turning to paragraph 10 of the Office Action, the Examiner has rejected claims 14 and 21, as understood, under 35 U.S.C. §103(a) as being unpatentable over Fujii et al. in view of Mullins et al. (U.S. Patent 5,614,788). The Applicants respectfully traverse this rejection for the following reasons. In that claim 14 depends from claim 12 and claim 21 depends from claim 20, and for at least the reasons stated above claims 12 and 20 are in condition for allowance, the Applicants submit that claims 14 and 21 are in condition for allowance.

Turning to paragraph 11 of the Office Action, the Examiner has rejected claims 15 and 18, as understood, under 35 U.S.C. §103(a) as being unpatentable over Fujii et al. The Applicants respectfully traverse this rejection for the following reasons. In that claims 15 and 18 depend from claim 12, and for at least the reasons stated above claim 12 is in condition for allowance, the Applicants submit that claims 15 and 18 are in condition for allowance.

Turning to paragraph 13, the Examiner has rejected claims 12-21 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 27-31 of U.S. Patent No. 6,653,615. The Applicants submit herewith a timely filed terminal disclaimer in compliance with 37 CFR 1.321(c), therefore, Applicants request that this rejection as to claims 12-21 be removed.

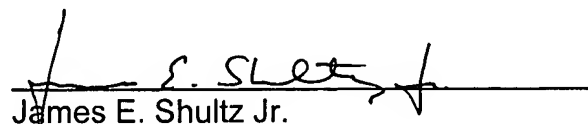
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Applicants respectfully submit that claims 2-4, 6, 8, 9, 11, 13, 15 and 17-20 as originally presented, along with claims 1, 7, 12, 14, 16 and 21, as amended via this paper, are in condition for allowance. No new subject matter has been added via the amendments to the claims presented in this paper.

Therefore, the Applicants respectfully request that the Examiner reconsider this case. The Applicants contend that this case is now in condition for allowance. The Applicants, therefore, respectfully request that a timely Notice of Allowance be issued in this case. Please contact the undersigned should additional information be required.

Respectfully submitted,
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By: Gentex Corporation

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Date


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